

WHAT IS CLAIMED IS:..

1. A two-way CATV system comprising:

at least one bidirectional amplifier provided on a CATV transmission path for connecting a CATV center station to a subscriber home;

bias voltage superposing means for superposing, with a bias voltage, a downstream signal transmitted along a coaxial transmission path subordinate to an amplifier at the terminal among said bidirectional amplifiers; and

bias current adjusting load means, provided at the end of said coaxial transmission path, for setting the bias current corresponding to an application of the bias voltage superposed by said bias voltage superposing means.

2. A two-way CATV system comprising:

at least one bidirectional amplifier provided on a CATV transmission path for connecting a CATV center station to a subscriber home;

bias voltage superposing means for superposing, with a bias voltage, a downstream signal transmitted along a coaxial transmission path subordinate to an amplifier at the terminal among said bidirectional amplifiers; and

bias current adjusting load means, provided at each of tap-offs of said coaxial transmission path, for setting the bias current corresponding to an application of the bias voltage superposed by said bias voltage superposing means.

A 3. A two-way CATV system according to claim 1 or 2, wherein
said bias current adjusting load means is a resistance element.

A 4. A two-way CATV system according to claim 1 or 2, wherein
5 said bias current adjusting load means is constructed of an
5A impedance element including at least one of an inductor element
5B and a capacitor element.

A 5. A two-way CATV system according to claim 1 or 2, wherein
10 the bias voltage with which said bias voltage superposing means
superposes the downstream signal, is an AC bias voltage.

A 6. A two-way CATV system according to claim 1 or 2, wherein
said bias voltage superposing means includes means for generating
15 a DC bias voltage as the bias voltage with which the downstream
signal is superposed.

A 7. A two-way CATV system according to claim 1 or 2, wherein
said bias voltage superposing means includes means for generating
20 a pulsating bias voltage as the bias voltage with which the
downstream signal is superposed.

A 8. A two-way CATV system according to claim 1 or 2, wherein
said bias voltage superposing means includes:

25 means for generating positive and negative DC bias voltages
as the bias voltages with which the downstream signal is
superposed; and

means for alternately periodically superposing the positive and negative DC bias voltages in response to control signals given from said CATV center station.

A 5 9. A two-way CATV system according to claim 1 ~~or 2~~, wherein said bias voltage superposing means includes:

means for generating positive and negative pulsating bias voltages as the bias voltages with which the downstream signal is superposed; and

10 means for alternately periodically superposing the positive and negative pulsating bias voltages in response to control signals given from said CATV center station.

A 15 10. A two-way CATV system according to claim 1 ~~or 2~~, wherein said bias voltage superposing means includes:

means for generating positive and negative DC bias voltages as the bias voltages with which the downstream signal is superposed; and

20 means for alternately superposing the positive and negative DC bias voltages in response to time-period signals.

A 25 11. A two-way CATV system according to claim 1 ~~or 2~~, wherein said bias voltage superposing means includes:

means for generating positive and negative pulsating bias voltages as the bias voltages with which the downstream signal is superposed; and

means for alternately superposing the positive and

negative pulsating bias voltages in response to time-period signals.

A 12. A two-way CATV system according to claim 1 ~~or 2~~, wherein
5 the bias voltage with which said bias voltage superposing means
superposes the downstream signal is an AC bias voltage, and
said two-way CATV system further comprises means for
supplying said coaxial transmission path with the AC bias voltage
in response to the control signal given from said CATV center
10 station.

A 13. A two-way CATV system according to claim 1 ~~or 2~~, wherein
said bias voltage superposing means includes:

a transformer for boosting the AC bias voltage with which
15 the downstream signal is superposed;

switch means for applying a large voltage in burst on a
time-period basis for a short time; and

filter means for filtering only the burst bias current.

A 14. A two-way CATV system according to claim 1 ~~or 2~~, wherein
20 said bias voltage superposing means includes:

means for boosting and rectifying the AC bias voltage with
which the downstream signal is superposed;

a capacitor element for accumulating DC high voltage
25 outputs;

switch means for discharging the DC high voltage in pulse
on a time-period basis for a short time; and

10